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09/740,212	12/15/2000	William J. Young	P4803	4343

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EXAMINER
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MAHMOUDI, HASSAN

ART UNIT	PAPER NUMBER
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2175

DATE MAILED: 11/17/2003

11

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/740,212

Applicant(s)

YOUNG ET AL.

Examiner

Tony Mahmoudi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Remarks*

1. In response to communications filed on 19-August-2003, claims 1-26 are pending in the application.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jammes et al (U.S. Patent No. 6,484,149) in view of Memmott et al (U.S. patent No. 6,560,591.)

As to claim 1, Jammes et al teaches a system (see Abstract) for querying a database in response to data access requests issued by an application program (see column 7, lines 48-50), the system comprising:

a text file containing queries corresponding to the data access requests (see column 1, lines 50-55, and see column 45, lines 27-35);

a database interface function (see column 7, lines 40-44);

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the queries, generated by operation of the database interface function on the text file (see column 7, lines 40-44, where “queries” is read on “requests from clients”, and see column 18, lines 48-60);

wherein, in response to one of the data access requests (see Abstract, and see column 50, lines 54-65), the database interface function submits, to the database, a query corresponding to the one of the data access requests (see column 16, lines 42-45), and retrieves the results of the query (see column 16, lines 45-49.)

Jammes et al does not teach: wherein the queries are formatted in accordance with the syntax required by the database; and a query lookup table, containing the queries.

Memcott et al teaches system and method for managing multiple data providers (see Abstract), in which he teaches wherein the queries are formatted in accordance with the syntax required by the database (see column 3, lines 28-31, and see column 7, lines 16-20); and a query lookup table containing the queries (see column 5, lines 14-17.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Jammes et al to include wherein the queries are formatted in accordance with the syntax required by the database; and a query lookup table, containing the queries.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Jammes et al with the teachings of Memcott et al, because the queries formatted in accordance with the syntax required by the database, would enable the system to interact with different databases regardless of the required format by such databases, by formatting the queries into formats suitable for each database. For

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example, it may be necessary to include information in the response to establish a context for the data (e.g. information similar to the query characteristic), and/or it may be necessary to present portions of the data in a specified sequence within the response, as taught by Memmott et al, (column 7, lines 20-24); and because a query lookup table, containing the queries would increase the speed of viewing and selecting queries, resulting in a faster decision process, as taught by Memmott et al, column 5, line 16.)

As to claims 2, 9, and 14, Jammes et al as modified teaches wherein the database interface function also formats the results of the query (see Memmott et al, column 7, lines 16-20.)

As to claims 3, 10, and 15, Jammes et al as modified teaches wherein the database interface function also returns the results of the query after the results have been formatted (see Jammes et al, column 20, lines 56-60.)

As to claims 4, 11, and 16, Jammes et al as modified teaches wherein the queries in the query lookup table are located by name in response to one of the data access requests (see Memmott et al, column 5, lines 11-17, where “name” is read on “characteristics”.)

As to claim 5, Jammes et al as modified teaches wherein the query name indicates a type of data requested (see Jammes et al, column 10, lines 10-22) and a type of operation to be performed on the database (see Jammes et al, column 18, lines 10-25.)

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As to claims 6, 12, and 17, Jammes et al as modified teaches wherein each of the data access requests (see Jammes et al, Abstract, and see column 50, lines 54-65) provided by the application comprises a query name and an argument array (see Jammes et al, column 10, lines 10-22, and see column 18, lines 48-60.)

As to claims 7 and 18, Jammes et al as modified teaches wherein the queries in the text file are SQL strings (see Jammes et al, column 19, lines 9-19.)

As to claim 8, Jammes et al teaches a system for interfacing an application program (see Abstract, and see column 8, lines 53-59) with more than one type of database (see figure 1) in response to data access requests issued by an application program (see column 50, lines 54-65), the system comprising:

- a first text file containing queries corresponding to the data access requests (see column 1, lines 50-55, and see column 45, lines 27-35);

- a database interface function (see column 7, lines 40-44);

- the queries, generated by operation of the database interface function on the first text file (see column 7, lines 40-44, where “queries” is read on “requests from clients”, and see column 18, lines 48-60);

- a second database (see column 57, lines 5-14);

- a second text file containing queries (see column 1, lines 50-55, and see column 45, lines 27-35), formatted in accordance with the second database (see column 7, lines 40-47), corresponding to the data access requests (see column 16, lines 42-45); and

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a second query generated by operation of the database interface function on the text file (see column 7, lines 40-44, where “queries” is read on “requests from clients”, and see column 18, lines 48-60);

wherein, in response to one of the data access requests (see Abstract, and see column 50, lines 54-65) issued to either database, the database interface function submits, to the appropriate database, a query corresponding to the one of the data access requests (see column 16, lines 42-45), and retrieves the results of the query (see column 16, lines 45-49.)

Jammes et al does not teach: wherein the queries are formatted in accordance with the first database; a first query lookup table; and a second query lookup table.

Memcott et al teaches system and method for managing multiple data providers (see Abstract), in which he teaches wherein the queries are formatted in accordance with the first database (see column 3, lines 28-31, and see column 7, lines 16-20); and a first query lookup table; and a second query lookup table (see column 5, lines 14-17.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Jammes et al to include wherein the queries are formatted in accordance with the first database; a first query lookup table; and a second query lookup table.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Jammes et al with the teachings of Memcott et al, because wherein the queries are formatted in accordance with the first database, would enable the system to interact with different databases regardless of the required format by such databases, by formatting the queries into formats suitable for each database. For

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example, it may be necessary to include information in the response to establish a context for the data (e.g. information similar to the query characteristic), and/or it may be necessary to present portions of the data in a specified sequence within the response, as taught by Memcott et al., (column 7, lines 20-24), and because a first query lookup table; and a second query lookup table would increase the speed of viewing and selecting queries, resulting in a faster decision process, as taught by Memcott et al., column 5, line 16.)

As to claim 13, Jammes et al. teaches a method for querying a database in response to data access requests issued by an application program (see Abstract), the method comprising the steps of:

storing queries (see column 8, lines 53-59), corresponding to the data access requests, in a text file (see column 16, lines 42-45) wherein the queries are formatted in accordance with the syntax required by the database (see column 20, lines 32-44);

reading the text file (see column 46, lines 23-31);

submitting, to the database, in response to one of the data access requests, one of the queries corresponding to the one of the data access requests (see column 16, lines 42-45), and retrieving the results of the query (see column 16, lines 45-49.)

Jammes et al. does not teach generating a query lookup table containing the queries.

The applicant is directed to the comments and remarks made for this teaching, in claim 1 above.



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4. Claims 19-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jammes et al (U.S. Patent No. 6,484,149) in view of Memmott et al (U.S. Patent No. 6,560,591), and further in view of Larson (U.S. patent No. 6,115,705.)

As to claim 19, Jammes et al teaches a method for querying a database in response to data access requests issued by an application program (see Abstract), the method comprising the steps of:

writing database queries to access the database (see column 9, lines 12-18);

storing the database queries in a text file (see column 8, lines 53-59, and see column 16, lines 42-45);

reading the queries in the text file (see column 46, lines 23-31);

receiving, from the application program, one of the data access requests (see column 8, lines 60-67) including at least one parameter associated therewith (see column 17, lines 30-43);

locating, a selected one of the queries corresponding to the one of the data access requests received from the application program (see column 46, lines 33-42);

substituting the at least one parameter into corresponding positions in the selected one of the queries (see column 47, lines 50-55);

submitting, to the database, in response to one of the data access requests, the selected one of the queries (see column 16, lines 42-45); and

retrieving the results of the query (see column 16, lines 45-49.)

Jammes et al does not teach a query lookup table.

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The applicant is directed to comments and remarks made for this teaching in claim 1 above.

Jammes et al as modified, still does not teach hashing the queries to generate a query lookup table containing the queries in hashed form.

Larson teaches a system and method for query processing in databases (see Abstract), in which he teaches hashing the queries to generate a query lookup table containing the queries in hashed form (see Abstract, and see column 6, lines 12-42.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Jammes et al as modified to include hashing the queries to generate a query lookup table containing the queries in hashed form.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Jammes et al as modified, with the teaching of Larson, because hashing the queries to generate a query lookup table containing the queries in hashed form, would enable the system to perform storage and retrieval of queries in a lookup table more efficiently, by minimizing the number of I/O operations and reducing memory requirements for the query processes.

As to claims 20 and 25, Jammes et al as modified teaches wherein the queries in the query lookup table (see Memmott et al, column 5, lines 11-17) are located by name in response to one of the data access requests (see Jammes et al, column 46, lines 40-54.)

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As to claims 21 and 26, Jammes et al as modified teaches wherein each of the data access requests (see Jammes et al, Abstract, and see column 50, lines 54-65) provided by the application comprises a query name and an argument string (see Jammes et al, column 10, lines 10-22, and see column 18, lines 48-60.)

As to claim 22, Jammes et al teaches a method for querying a database in response to data access requests issued by an application program (see Abstract), the method comprising the steps of:

creating a database interface function (see column 7, lines 40-44) to handle the data access requests (see column 26, lines 15-23);

writing database queries to access the database (see column 9, lines 12-18);

executing the database interface function (see Abstract) to perform the steps of:

For the remaining steps of claim 22, the applicant is directed to remarks and discussions made in claim 19 above.

As to claim 23, Jammes et al as modified teaches the method performed in an object-oriented programming environment (see Jammes et al, column 2, line 61 through column 3, line 12, and see column 6, lines 59 through column 7, line 7) wherein the database interface function comprises:

a parent class that handles application logic common to all queries (see Jammes et al, column 19, lines 55-59); and

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a child class that formats the results of the query (see Jammes et al, column 20, lines 17-31.)

As to claim 24, Jammes et al as modified teaches wherein static data in the query lookup table (see Memmott et al, column 5, lines 11-17) comprises a class attribute available to all subclasses of the parent class without requiring reloading of the query lookup for each of the data access requests (see Jammes et al, column 12, lines 11-22, where “class attribute” is read on “class ID”).

#### ***Response to Arguments***

5. Applicant's arguments filed on 19-August-2003 with respect to the rejected claims in view of the cited references have been fully considered but they are not found persuasive:

In response to applicant's arguments that “the references, either alone or in combination, do not teach or suggest a query lookup table that contains queries corresponding to data access requests”, the arguments have been fully considered but are not found persuasive, because as addressed in the office action, Memmott et al teaches “data access requests” in “possible formats for the query received from data requestor 110 include object oriented formats such as Managed Object Formats (MOF) and syntaxes such as Extensible Markup Language (XML)” (see column 3, lines 28-31), and also teaches “lookup table that contains queries” in “another possible decision structure is a lookup table (e.g. indexed by the query characteristic)” (see column 5, lines 11-17.)

In response to applicant's arguments that Jammes et al "does not mention query lookup tables of any kind or any kind of query interface process", the arguments have been fully considered but are not found persuasive, because "query lookup table" is taught by Memcott et al, as discussed above. As for the "query interface", although Jammes et al notes that "methods of providing such common query interfaces are not within the scope of this invention and will not be further discussed", he does teach that "Relational database servers 114 utilizing ODBC are known in the art. One function of such relational database servers is to provide to application programs a common query interface to interact with multiple database systems having different query interfaces" (see column 8, lines 53-57.)

In response to applicant's arguments regarding the "obviousness" of the combination of the cited references, in that "the mere fact that that references can be combined or modified does not render the resultant combination obvious under §103 unless the prior art also suggests the desirability of the combination", the arguments have been fully considered but are not found persuasive, because the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, "obviousness" is established both in the teachings of the secondary reference, Memcott et al, as well as in the knowledge

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generally available to one of ordinary skilled in the art, to have modified Jammes et al with the teachings of Memcott et al, because the queries formatted in accordance with the syntax required by the database, would enable the system to interact with different databases regardless of the required format by such databases, by formatting the queries into formats suitable for each database. For example, it may be necessary to include information in the response to establish a context for the data (e.g. information similar to the query characteristic), and/or it may be necessary to present portions of the data in a specified sequence within the response, as taught by Memcott et al, (column 7, lines 20-24); and because a query lookup table, containing the queries would increase the speed of viewing and selecting queries, resulting in a faster decision process, as taught by Memcott et al, column 5, line 16.)

In response to applicant's arguments that Larson "does not remedy this deficiency" of Jammes et al and Memcott et al not including a query lookup table that contains queries corresponding to data access requests in any form, the arguments have been fully considered but are not found persuasive in view of the remarks and discussions made for the Jammes et al and Memcott et al references above.

### *Conclusion*

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Tony Mahmoudi whose telephone number is (703) 305-4887. The examiner can normally be reached on Mondays-Fridays from 08:00 am to 04:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached at (703) 305-3830.

tm

November 7, 2003

  
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